

MISSOURI. Conservationist

VOLUME 70, ISSUE 2, FEBRUARY 2009 • **SERVING NATURE & YOU**



Faces of Conservation

Missourians' aquatic interests include fly fishing for trout, catfishing on large rivers, canoeing Ozark streams and many more too numerous to mention. The great variety of water

bodies in our state allows us to pursue such diverse recreational interests. Missouri's rivers and streams range from the popular float streams of the Ozarks to the catfish-abundant prairie streams of the north to the modified streams of the Bootheel. Our lakes include privately owned ponds, water supply lakes and large reservoirs. Missouri's geographic location and geology even provide coldwater streams that support a host of organisms that seem a world apart from the critters that live in our warmwater streams.

The diversity of our water resources presents unique challenges. Our well-trained and dedicated employees are working to meet these challenges. Allow me to introduce just a few of the professional conservationists who serve you.

Todd Gemeinhardt lives in Raymore with his wife, Nicole, and daughter, Madelyn. He received both a bachelor's and a master's from the University of Missouri-Columbia in fisheries and wildlife. In his free time, Todd enjoys hunting, fishing and spending time with his family. A recent highlight for him was watching his 2-year-old daughter catch her first fish. Todd particularly enjoys working with private landowners to improve their aquatic resources.

Sherry Fischer is a Stream Team biologist, and one of the things she enjoys most about her job is sharing her appreciation for aquatic resources with others. Her love of streams began at an early age, and she spent

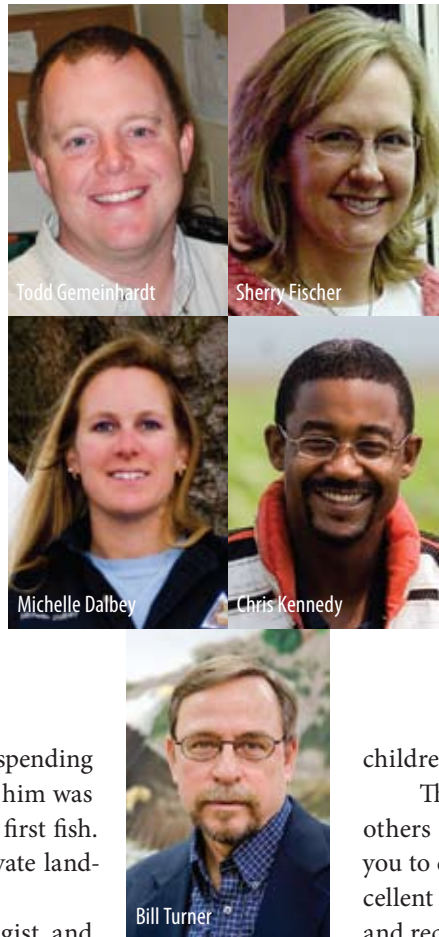
much of her childhood exploring creeks in her hometown, Jefferson City, where she still lives with her husband and two children.

Michelle Dalbey is a resource assistant at Blind Pony Hatchery, where she works raising numerous species—including the endangered pallid sturgeon. She grew up in Columbia and graduated from the University of Missouri-Columbia with a bachelor's in agriculture. Michelle enjoys life on an old farmstead with her husband, Jeff, a cat and a dog. In her spare time she likes hunting, baking and cheering for Mizzou!

Originally from St. Louis, Chris Kennedy has spent the past 13 years working for the Conservation Department. He is now a fisheries regional supervisor in the Southeast region. Chris obtained his bachelor's in fisheries biology from the University of Arkansas at Pine Bluff. He and his wife, Nekea, live in the Cape Girardeau area where they enjoy fishing, boating, hiking and camping with their children and family.

These professional conservationists, and many others like them, are committed to working with you to conserve our water resources and provide excellent fishing. Thank you for supporting the health and recreation value of Missouri's waterways.

Bill Turner, fisheries division chief











OUR MISSION: *To protect and manage the fish, forest and wildlife resources of the state; to serve the public and facilitate their participation in resource management activities; and to provide opportunity for all citizens to use, enjoy and learn about fish, forest and wildlife resources.*



Cover and left by Noppadol Paothong

NextGEN

This section reports on goals established in *The Next Generation of Conservation*. To read more about this plan, visit www.MissouriConservation.org/12843.

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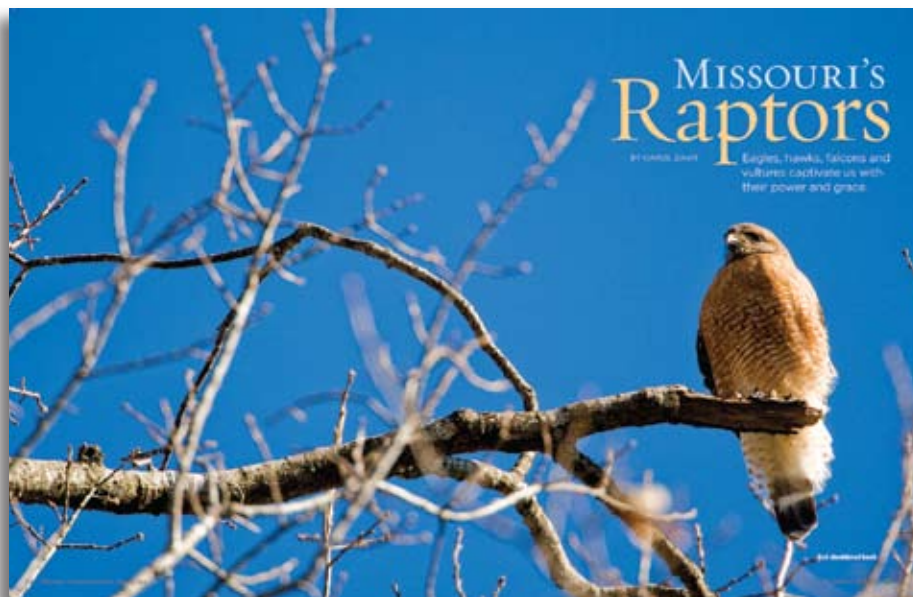
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MO. RAPTORS

A rose is due Ms.

Carol Davit for her
attention-getting
article on raptors

in the January issue [*Missouri's Raptors*]. I was not well informed about these interesting creatures until Ms. Davit's article, and she gave me a thorough education on the subject. I was not aware that there were so many different species among us.

The photographers are also due credit for the detailed pictures, especially the beautiful bald eagle. I look forward to seeing more of Ms. Davit's articles in the *Conservationist*.

Stanley Stanton, Springfield

FLYER FISHING

I have always wondered about those pictures of eagles swooping down in the middle of winter and grabbing a fish. As an avid fisherman I find it hard to believe an eagle could find a fish near the top of the water in the middle of winter. On Page 3 of the January issue [Reader Photo: *Lucky Catch*] it shows an eagle with what appears to be some type of perch or possibly a carp. Am I crazy

in thinking fish don't usually frequent shallow or the top layer of deeper water in cold weather?

Mike Horton, Chesterfield

Editors' note: "You have made a good observation regarding the ability of eagles to catch fish in the winter at a time when fish rarely frequent the surface. Keep in mind that eagles often scavenge on dead animals and fish. I suspect that fish that are near death and struggling near the surface are also easy targets for eagles. Winter can be a time of frequent fish kills



and much stress for fish that are trapped in ponds and lakes under low oxygen conditions under the ice. In the photo you mention, I noticed ice in the background, so it could be that low oxygen conditions had resulted in a number of dead or dying fish available for eagles."—Mike Kruse, fisheries administrative manager

MAKING MEMORIES

I got my December copy of the *Conservationist* and sat down in front of my fireplace and started reading. As I made my way through to the end, as always, I read the Agent Notes. This one hit home for me.

I have a son who is 13 and has always been the kind of son who looks up to his dad and what I do. At the same age I also looked up to my dad. He loved the outdoors, and he would always find time to take me to the woods and to go fishing and hunting. I got my first .22 rifle at age 13, and my love for conservation grew from there as I got older. We spent a lot of time hunting squirrels in the Ozark hills.

Now that I am a father and my son spends that time with me and, yes, Agent Braunecker, you are correct about the Xbox and TV (my fault), I make time to get my son out of the house and experience the things that I did when I was his age. I even went out and bought property for my kids to play and explore. My son is great to watch as he learns and asks a lot of questions about what is out there. I plan on passing down my .22 rifle to my son someday as my father did to me, but for now he has his own.

Edward Dickinson, via Internet

CORRECTIONS

In *Missouri's Raptors* [January; Page 31] the Web address to purchase *Birds in Missouri* by Brad Jacobs should have been www.mdcNatureShop.com.

The eagle-themed coins celebrating the Endangered Species Act mentioned in *Coins Celebrate Eagles, ESA* [January; Page 5] are no longer available through the US Mint. To find other eagle-themed coins from the US Mint, visit www.usmint.gov/mint_programs and click on "American Eagles," or call toll-free 800-USA-MINT.



DEPARTMENT HEADQUARTERS

Phone: 573-751-4115
Address: PO Box 180,
Jefferson City 65102-0180

REGIONAL OFFICES

Southeast/Cape Girardeau: 573-290-5730
Central/Columbia: 573-884-6861
Kansas City: 816-655-6250
Northeast/Kirksville: 660-785-2420
Southwest/Springfield: 417-895-6880
Northwest/St. Joseph: 816-271-3100
St. Louis: 636-441-4554
Ozark/West Plains: 417-256-7161

SUBSCRIPTIONS

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Address: Circulation, PO Box 180, Jefferson City 65102-0180
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OMBUDSMAN QUESTIONS

Phone: 573-522-4115, ext. 3848
Address: Ombudsman, PO Box 180,
Jefferson City 65102-0180
E-mail: Ombudsman@mdc.mo.gov

EDITORIAL COMMENTS

Phone: 573-522-4115, ext. 3245 or 3847
Address: Magazine Editor, PO Box 180,
Jefferson City 65102-0180
E-mail: Magazine@mdc.mo.gov

READER PHOTO SUBMISSIONS

Address: *Missouri Conservationist*, Reader Photo,
PO Box 180, Jefferson City 65102-0180
E-mail: Readerphoto@mdc.mo.gov

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GOVERNOR Jay Nixon

THE CONSERVATION COMMISSION

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Lowell Mohler
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Resource Science Ronald Dent
Wildlife Dee Cee Darrow

CONSERVATIONIST STAFF

Editor In Chief Ara Clark
Managing Editor Nichole LeClair
Art Director Cliff White
Writer/Editor Tom Cwynar
Staff Writer Bonnie Chasteen
Staff Writer Jim Low
Photographer Noppadol Paothong
Photographer David Stonner
Designer Stephanie Thurber
Artist Dave Besenger
Artist Mark Raithel
Circulation Laura Scheuler

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Reader Photo

QUICK STUDY

Blake Shroeder of Jefferson City captured this picture of native grasses backlit by the setting sun at Runge Conservation Nature Center. Shroeder is a student at Missouri State University in Springfield, studying microbiology. "I am a senior and will graduate in the fall," said Shroeder. "I love photography, but have not been able to pursue it as much as I want because of school and current research I am involved in. But I try to get out as much as possible." In addition to photography, Shroeder enjoys camping, hiking and fishing.

on the WEB

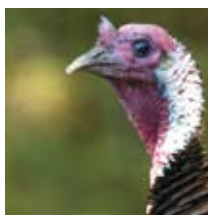
This month check out our featured Web pages, or go online anytime to learn more about conservation at www.MissouriConservation.org.



FIRE PREVENTION

www.MissouriConservation.org/15942

Now is the time to clear leaves, sticks and other debris away from buildings and other areas. Learn what constitutes a potential hotspot, and what to do about it.



SPRING GOBBLERS

www.MissouriConservation.org/7498

A new hunt is just around the corner. Find out about spring turkey hunting dates and regulations.



BEARING FUR

www.MissouriConservation.org/7863

Missouri is one of the top states for trapping furbearers, with roots going back to the early days of St. Louis. Learn about the history of trapping in Missouri.



ASK THE OMBUDSMAN

Q: While fishing at a local pond I noticed ripples moving through the water as if a fish were swimming close to the top. I did not see any fish and the ripples would move fairly quickly and always at a steady pace. They don't always seem to move in the same direction as the wind. What do you think could be causing these?

A: I have seen the same thing many times and wondered about it, especially when the fish were not biting. In my experience it is often a distinct "V" in the water that moves some distance rather quickly before disappearing. I had my own theory, but I checked with two fisheries biologists and an engineer here to gather their viewpoints. Our consensus is that the movement of something in the water is causing the ripple or "V" in the water. It could be small prey fish escaping quickly from a predator fish or it could be larger predator fish just beneath the surface. There may even be some insects, such as aquatic diving beetles, whose movements would produce a noticeable ripple. None of us felt that the wind was the culprit.

Q: Why does the spring turkey season always begin on a Monday rather than a Saturday?

A: The reason behind the Monday opener is to improve the quality of the hunt. It prevents overcrowding of popular areas on the first weekend. Because only one bird can be harvested during the first week, successful weekday hunters will be out of the woods by the first open weekend. By spreading out the hunting pressure, safety is improved and interference from other hunters is minimized.

Ombudsman Tim Smith will respond to your questions, suggestions or complaints concerning Department of Conservation programs. Write him at PO Box 180, Jefferson City, MO 65102-0180, call him at 573-522-4115, ext. 3848, or e-mail him at Ombudsman@mdc.mo.gov.



NOPPADOL PAOTHONG



Species of Concern **Missouri Cave Lichen**



Onyx Cave

Common name: Missouri cave lichen

Scientific names: *Coenogonium missouriense*

Range: Onyx Cave

Classification: Possibly extinct

To learn more about endangered species: www.MissouriConservation.org/8227

ENDANGERED-SPECIES CONSERVATION isn't all about eagles and orchids. Some of the rarest living things are those least likely to attract attention. That is the case with the Missouri cave lichen. Lichens are symbiotic associations where fungi give algae a place to live, and algae provide nourishment to the fungus through photosynthesis. The Missouri cave lichen has only been found in one place on earth, Onyx Cave in Pulaski County. The tiny communities lived in the twilight zone at the back of the cave's mouth. Clinging tightly to the dolomite rock, they formed 1- to 2-mm mats resembling cobblestones. Several microscopic plants and animals made their homes in the pale green patchwork. In 1990, the cave was turned into a tourist attraction. Resulting changes in light and air flow might have killed the lichens, which have not been observed since. Lichenologists still hope to rediscover the species at Onyx Cave or another location.

"Gobbleteers" Needed

Turkey hunters can kill two birds with one stone.

Turkey hunters can scout for the spring hunting season and advance scientific knowledge by joining the Conservation Department's "Gobbleteer" study. Volunteers count gobbles and gobbling birds for 20 minutes twice a week from March 15 to May 15. They choose their own listening locations. The study aims to learn when gobbling peaks. With this information, biologists will be better able to set turkey season to coincide with the period when gobblers are most receptive to calling. To sign up as a volunteer or to find more information, visit www.MissouriConservation.org/19245.



Spring's Approach

These tiny frogs don't make a peep until spring is near.

The northern spring peeper (*Pseudacris crucifer crucifer*) is springtime's opening act. Males usher in the season with their upbeat peeps, starting as early as late February in extreme southern Missouri. Their cheery chorus reaches the state's northern region by the middle of March. Why do these tiny creatures awaken so early and in such good moods? Maybe it is a sugar high. High concentrations of glucose in their blood allow spring peepers to survive sub-freezing winter weather unharmed. In spite of their amazing abilities, frogs are among the most-endangered groups in the world. Nearly one-third of all known species are in decline.

You can download Missouri frog songs free at www.MissouriConservation.org/19246. For more information about factors contributing to amphibian decline, visit amphibiaweb.org/declines/declines.html#why.





Visit a Champion

Spectacular trees are all around the state.

Winter, when leaves are on the ground, is the best time to see Missouri's champion trees and look for new ones. Missouri has 116 champion trees in 47 counties scattered across every region of the state. A tree's score is the sum of its height in feet, one-quarter of its average spread in feet and its trunk circumference in inches. Four Missouri champion trees are national champions. Missouri's biggest champion tree is an American sycamore in Polk County that stands 94 feet tall, has a circumference of 333 inches and an average spread of 120 feet for a total score of 457. For a list of champion trees, visit www.MissouriConservation.org/294.



St. Francis River

Lunker walleyes inhabit this Ozark stream.

Until the late 1960s, catches of walleye weighing 10 to 12 pounds were not uncommon on the St. Francis. After that, however, the fishery declined. By 1990, catching any walleye—much less a trophy—from the St. Francis River was a rare event.

Fisheries biologists believed that anglers were catching more walleye than the fishes' natural reproduction could replace. The Conservation Commission closed walleye fishing on the St. Francis above Wappapello Dam in 1997. This allowed nearly 200,000 walleye fingerlings the Conservation Department put in the river to grow.

March 1 will mark a new chapter in St. Francis River walleye history, as anglers once again are allowed to catch and keep walleye in the St. Francis River and its tributaries above Wappapello Dam.

Anglers can keep four walleyes daily. The fish have to be at least 18 inches from tip of nose to tip of tail. The possession limit is eight. These limits include saugers, fish that resemble walleyes so closely that many anglers would have trouble telling them apart. See *A Summary of Missouri Fishing Regulations* or the *Wildlife Code* for season information (available at permit vendors).

Trail Guide



DISAPPEAR INTO NATURE IN KIRKWOOD



REDISCOVER NATURE AT Powder Valley Conservation Nature Center, where 3 miles of trails allow visitors to disappear into 112 acres of nature for hours on end without ever leaving the city of Kirkwood. The

.3-mile Tanglevine Trail circles south of the nature center and is paved for wheelchair access. It is situated on a ridge that boasts century-old white oak trees sporting bonnets of grapevines that lend the trail its name. The 1.2-mile Hickory Ridge Trail alternates between hills and valleys, forest and savanna and has a viewing deck overlooking a seasonal stream and a wooded valley. You can take a cutoff that shortens this hike to a .5-mile loop. The Broken Ridge Trail circles north of the nature center through steep terrain with shady oak-hickory-maple forest and sunny rock outcroppings. Look for songbirds in the forest, lizards in rocky areas and wildflowers all over from spring through fall.

Area name: Powder Valley Conservation Nature Center

Trails: Tanglevine, Hickory Ridge and Broken Ridge

Unique features: Disabled-accessible trail

For more information: Call 314-301-1500 or visit

www.MissouriConservation.org/2343



TAKING ACTION

Creative Recycling



Group Featured: Twin Pines Conservation Education Center

Location: Highway 60, 1.3 miles east of the junction with Highway 19 North in Winona.

Contact: For more information, call 573-325-1381 or visit the Twin Pines Web site at www.MissouriConservation.org/16902

TRASH NEVER HAD it so good. The creative staff of the Conservation Department's Twin Pines Conservation Education Center in Winona reinvent toilet paper rolls into bird feeders, milk jugs into handwashing stations, PVC pipe into bird houses and yogurt cups into fishing-bait containers. Some of the center's garbage feeds composting worms, which might someday star in fishing programs. Items that cannot be directly reused are sent to the city recycling program, and new supplies are made from recycled materials whenever possible. They have also developed an educational program called "The Garbage Monster" that encourages both reading and recycling. Staff read the book *The Garbage Monster* with children and then lead them through stations that teach them about recycling.

Recycling projects and programs affect nearly every aspect of Twin Pines' operations, and they'd love to demonstrate how you can have fun, save money and get creative with recycling, too. So visit soon!

2,000 Friends and Growing

Forestkeepers celebrate a new membership milestone.

The Missouri Forestkeepers Network recently enrolled its 2,000th member, Linda McAvoy of Jefferson County.

Linda homeschools her two sons, ages 9 and 11. She is also a Boy Scout Webelos leader for five boys. She anticipates using the Forestkeepers materials with both her Scout Troop and her boys in the classroom.

The Missouri Forestkeepers Network's mission is to develop a network of informed citizens working to conserve, sustain and enhance Missouri's urban and rural forest resources through volunteerism, advocacy and management. This free program is offered by the Missouri Department of Conservation in partnership with Forest ReLeaf of Missouri. It is designed to provide sound scientific information on tree care and management to Missourians. Participants are encouraged to take an active role in the care of our forests through a variety of activities and training. More information on the program and enrollment forms can be found at www.MissouriConservation.org/18969 or www.MissouriConservation.org/13920.

Linda will be recognized this spring at the Missouri Forestkeepers annual conference to be held in the St. Louis Regional Office in St. Charles. —Justine Gartner





Beaver Trapping

200 years after the pioneers, Missourians still chase pelts.

Felt hats and clothing drove the demand for beaver pelts during the pioneer era. As demand for these items declined so did the quest for beaver. A good beaver pelt still has value, however, and some Missourians take advantage of Missouri's trapping season to harvest the fur-bearing animals.

The state's annual beaver harvest depends greatly on the prices trappers can get for the pelts. In 2005, when prices were high, trappers in Missouri took almost 11,000 beavers. Last year, they took about 7,000, which is about average.

As in the old days, beaver pelts go to the hat and garment industry. Most beaver are sheared and go toward making hats, such as Stetsons. Light colored and black beaver pelts, especially those from younger animals, are made into garments.

Good places for beaver trapping include large public areas, such as Corps of Engineers lakes and the lands surrounding them, as well as public lands along the Missouri and Mississippi rivers. Private landowners often welcome beaver trappers because the animals girdle and fell trees and try to build dams, sometimes where they are not wanted.

Beaver trapping is not for novices. The traps, usually humane killing traps, are big and dangerous, as are the animals. Try to learn from a mentor, or at the very least read everything you can about beaver trapping before you purchase and set your first trap.



Wetland Island

Scout it Out



Name: Coon Island Conservation Area

Location: Southeast of Poplar Bluff on Highway 53, then 8 miles south on Route HH to County Road 224.

For more info: www.MissouriConservation.org/a7934



COON ISLAND CONSERVATION AREA IS AN OASIS of wild wetlands in the state's Bootheel. Although the whole region was once a combination of swamplands and forest, much of the area was converted into agriculture land—mostly rice farms. The Department purchased the 3,263-acre Coon Island property to protect remaining wetlands and to recreate seasonally flooded bottomland forest areas.

In 1992, the Department installed a system of levees, spillways, water control structures and submersible pumps to maintain wetland habitat year-round. The system is primarily for the benefit of water birds, including ducks, geese, rails, herons and egrets. Waterfowl probably benefit most. The open marsh and flooded timber provide them with acorns, wild millets, smartweeds, pigweed, sedges, tubers and invertebrates. Fields are flooded in fall to make this food more readily available to migrating waterfowl.

The area also provides access to good fishing for bass, panfish and catfish on the Black River. The access on the south end of the area is disabled accessible.



Backtracking Animals

You can learn a lot about animals by discovering where they've been.

New overnight snow makes it easy to follow an animal's trail. Many people, including hunters, are tempted to track an animal to see if they can locate it, but doing so likely affects the animal's behavior. If you really want to know how an animal spends its life, try backtracking it.

Just turn around when you spot fresh tracks to see where an animal has traveled to find water, food and shelter, its primary needs. Use a field guide to help you identify tracks or learn to recognize the tracks of rabbits, squirrels, coyotes, foxes, weasels and other common Missouri animals by going to Animal Autographs on the Conservation Department's Web site at www.MissouriConservation.org/8314.

Backtrack in the morning to find out how weasels, skunks or other nocturnal animals have spent the night. Follow the tracks of animals after a daytime snow to discover where they go during the daylight hours. You'll often find where deer have bedded, where rabbits have browsed near sheltering cover, where squirrels have hidden their food, or where mink poked their noses in search of food. Dress warmly and bring the family. Backtracking is not only educational; it's fun.



BIRDS OF A FEATHER

Turkey Vulture



Turkey vulture

IN OLD WESTERN movies, circling buzzards often led rescuers to injured cowpokes. What they called buzzards were likely turkey vultures (*Cathartes aura*), and the circling they saw is called kettling. The sight of turkey vultures kettling, however, does not always mean food is nearby. They might be taking advantage of thermal updrafts to soar higher or they might just be cruising.

Turkey vultures are scavengers of dead animals. Although they have good eyesight, their exquisite sense of smell allows them to find food concealed by leaves or debris. They are led to it by the unpleasant odor of mercaptan, a gas emitted when animal matter begins to decay. In tests, turkey vultures opted for fresh meat over putrefying meat, and they preferred herbivores (plant-eating animals) to carnivores. They don't eat live animals, although they sometimes eat insects and might consume fish stranded in shallow water.

It's easy to spot these black, eagle-size birds as they soar or as they hop from branch to branch at their roosts, to which they routinely return each winter (see *Vulture Venture*, Page 13). Their bald, wrinkly heads, lurking posture and grim-looking eyes make them unattractive to many, but their life styles are intricate and they are smart enough to be playful. To learn lots more about these birds visit the Turkey Vulture Society Web site at vulturesociety.homestead.com.



Building Mussels

These small creatures create environmental benefits.

Freshwater mussels make life better for Missourians several ways. They remove mud, bacteria and algae from water. They are food for otters, birds and fish, and their sensitivity to pollution serves as the basis for water-quality regulations. Ten of Missouri's mussel species are endangered. The Conservation Department, the Kansas City Zoo, Missouri State University and the U.S. Fish and Wildlife Service have released more than 3 million captive-reared mussels into the wild since 1999. This is only a temporary solution, however. Habitat restoration, protection from poaching and pollution control are the keys to long-term mussel recovery and stream health.



fish (*Gambusia affinis*) is a voracious predator of mosquito larvae and bears live young instead of laying eggs. These and other small Missouri River fish are at risk due to competition from invasive Asian carp, which grow much larger but compete for the same microscopic food. No one knows yet how this competition might affect larger fish, such as catfish, that rely on the Missouri River's little fish for their own food.

Big River, Little Fish

There's more out there than catfish and carp!

The Missouri River is home to dozens of fish species that few people ever see. Missouri's stretch of river alone is home to 50 or so palm-sized or smaller fish species. These include bluegill, green sunfish, crappie and white and yellow bass. Anglers use creek chubs, fathead minnows, golden shiners, gizzard shad and goldeye for bait. Less familiar is the ghost shiner (*Notropis burchanani*), a shimmering silver wraith barely 2 inches long that is so prolific it can double its numbers twice a month under favorable conditions. The eastern mosquito

Stream Team



Chillicothe Middle School



CHILLICOTHE MIDDLE School students "pay it forward" through water-quality monitoring, stream cleanups and especially through educational projects that communicate their love of north-Missouri streams. "Through the years and all the presentations that we have done, I know we have touched thousands of younger students," said math and science teacher Nancy Elliott, who founded and still leads the group. Under her leadership, students have earned state and national honors. Grants have helped them buy canoes and a trailer-mounted stream table that carries lessons about streams and watersheds over a wide area. Students earn points for participation, and those with the most points go on a camping or float trip each spring. Does all this make a difference? It did to one student, who told Elliott he would have dropped out of school had it not been for Stream Team. "It doesn't get any better than that," she said.

Stream Team Number: 779

Date formed: May 6, 1996

Location: Grand River, Livingston County

For more info about Stream Teams: www.mostreamteam.org



Our Glorious Forests

RUDOLF BENNITT CA



Size: 3,515 acres

Location: 19 miles north of Columbia on Highway 63, then 5 miles west on Route F, then 2.75 miles north on Route T, and .50 mile west on County Road 2930

Habitat types: Forest and woodland, lakes and ponds, old fields, savanna and grassland

Facilities and features: Bicycling, hiking, horseback riding, bird watching, camping, fishing, hunting. Disabled accessible parking lots, boat ramps and fishing docks.

Find more info: www.MissouriConservation.org/a6214



IF YOU CAN'T wait for spring to arrive, saddle up your horse and look for early signs of it at Rudolf Bennitt CA. Named for Dr. Rudolf Bennitt, a zoology professor instrumental in forming the Conservation Department in the 1930s, the area features rolling, mostly forested terrain. Fields of native warm-season grasses and row crops are

scattered among the forests, and the 12.5-mile Moniteau Wilderness Trail serves hikers, bikers and equestrians. Five camping areas for both equestrians and other recreationists have 24 designated and numbered spots. Hitching posts, lantern posts and fire rings are also provided. Expect to see abundant wildlife, including deer, turkey, dove and quail. Be sure to pack your fishing pole—Rudolf Bennitt Lake (48 acres) provides a good fishery for bass, catfish, bluegill, crappie and redear sunfish.

Fire Threat After Ice Storms

Clear debris and reduce other fuels around your property.

The debris left behind by recent ice storms and tornadoes could fuel wildfires this spring. To protect your home, create a well-maintained open space at least 30 feet out from all sides of your house. Keep this space free of debris and obstacles. In the areas closest to your house, keep mulch moist and shrubs pruned. Use stone, concrete or brick for patios and decks, and stack firewood at least 30 feet away. For more fire-protection information, visit www.MissouriConservation.org/15942.



Is Your Home Firewise?

Learn how to protect your home from wildfire.

If you live near grasslands or woods, your home could be threatened by wildfire, especially during dry, windy months. Learn how to protect your home from the risk of wildfire before it strikes. The Firewise Communities program makes it fun and easy to learn about home protection techniques. This national, multi-agency effort, which includes the Department of Conservation, sponsors a Web site at www.Firewise.org. Featuring interactive modules, the site covers Firewise hints, lets you explore a virtual Firewise home, and demonstrates how to prepare your home for wildfire season. Use it to find out how "firewise" you are and learn how to respond to an approaching wildfire. For more information about the Firewise Communities program, call your regional MDC forester (see Page 3).





Food Plots

For optimal results, test soil before planting this spring.

As you watch wildlife this winter, plan to boost their chances for survival next year by planting an annual food plot. Before planting, test your soil. The results will show the amount of lime and fertilizer



required for good seed production. Plow the lime and fertilizer under, then disk the plot as

soon as the ground can be worked in the spring. For more information about soil testing, liming and fertilizing, call your local University of Missouri Extension office.

Think Big, Start Small

Small steps can lead to big habitat results.

Winter is the time for planning gardens, crops and habitat improvements. While it's good to dream big, it's also important to turn plans into actions. Rather than try (and fail) to implement a big plan all at once, take one small step at a time. Look at your calendar and mark a day or two a month when you can give full attention to your project. Spray along your fencerows in the late fall to open up thatched



grass, drop a few trees to create shrubby areas, disk up a food plot here and there, or just let some annual weeds come up. Do a little each year and soon you

will have big improvements. Remember—think big, start small ... just start!

Building Rabbit Habitat

On the Ground



“IT’S KIND OF like Dave always said, ‘if you build it, they will come.’” Robert Johnston recalls Private Land Conservationist Dave Knisley’s advice about creating habitat. Robert and his brother, Roger, “built” rabbit habitat on their property near Old Mines. With MDC guidance and cost-share assistance, they set back unbeneficial grasses, planted native warm-season grasses and food plots, cleared cedars and created brushpiles. Then the cottontails started popping up everywhere. So did the quail. Dave Knisley explained why this happened. “One of the keys is small, annually disturbed areas of habitat. That’s what it takes for rabbits, and the quail came along as an additional benefit.” Robert and Roger, who field trial beagles, especially appreciate having more rabbits on their place. “We run the dogs a lot, and we just love to listen to them run the rabbits.” For help building “rabbit-at” on your property, call your regional MDC office (see Page 3).



Endangered Species Postcard Contest

View 2008's top 12 winners online—a set of the top four are available for purchase.

Sensitive species such as hellbenders and madtoms are disappearing from Ozark rivers and streams, the only places in Missouri that provide them suitable habitat.

To help Missouri's kindergarten through 8th-grade students learn about the state's endangered species, the Department held a postcard contest this past fall. In response, students flooded the Department with more than 2,600 hand-drawn postcards depicting the theme, "Ozark river and stream habitat—we gotta have it!"

Four talented students took first-place prizes, one each for the four grade categories. Madelynn McIntyre of Hannibal won the K–2nd grade category (1), and Tom Bui of St. Louis won the 3rd–4th grade category (2). Meng Zou of Chesterfield took the top prize for the 5th–6th grade category (3), and Olivia Deeken of Westphalia won the 7th–8th grade category (4). View the top 12 winners at www.MissouriConservation.org/4151.

First place winners had their cards printed and sold through Department Nature Shops, with proceeds going to conservation education programs. To purchase a set, visit www.mdcNatureShop.com.



Find an Activity Near You

Online calendar lists nature events around the state.

Whether you're an avid hunter or casual nature observer, you'll find your favorite outdoor pursuit in the Department's online Calendar of Events. Designed for every age, interest and ability, it includes events and programs offered at your local nature center, conservation area or range and outdoor education center. Families will find nature activities for kids, hikers will find organized hikes, and hunters and anglers will find programs and clinics. Department events are a great way to reconnect with nature and get involved with conservation efforts. Search for programs near you at www.MissouriConservation.org/4163.

NATURE ACTIVITY



PHOTO: JOHN MILLER

Vulture Venture



SINCE 1996, THE Shepherd of the Hills Fish Hatchery in Branson has hosted Missouri's award-winning Vulture Venture program, featuring one of Missouri's most misunderstood and highly beneficial birds. Our 13th

annual event will be held at Lake Taneycomo, one of the few places where you can see both the black and turkey vulture in the same location. Participants will enjoy hourly live vulture programs with Socrates, a turkey vulture, from the Wonders of Wildlife Museum in Springfield. Attend vulture activities and games indoors, then go outdoors to see Missouri's largest winter population of vultures. As the sun begins to set, you'll get an up-close view of vulture "kettling"—a circling swarm of birds swooping in to roost for the night. Don't forget to pick up a copy of an unpublished Betty Chmielniak-Grace vulture print—and stick around to see if you will be the lucky participant to take home the original!

Program: 13th Annual Vulture Venture

Where: Shepherd of the Hills Fish Hatchery

When: Saturday, Feb. 21 from noon to 6 p.m.

Registration: No registration needed, and the program is free. Call 417-334-4865, ext. 0 for more information.





MISSOURI'S WINTER

by NOPPADOL PAOTHONG

▀ MISSOURI RIVER

Late in the evening at Eagle Bluffs Conservation Area in Columbia, I noticed a reflection on the Missouri River as the sun was setting over the hill. I used a polarizer filter to cut the glare of the water while increasing the contrast of the clouds above, and a neutral density filter to get the most color out of the sky while maintaining correct exposure at the bottom of the frame.

17-40mm wide-angle lens • f/4.0

WINTER

might be my favorite season. I grew up in Bangkok, Thailand, a city that is hot nearly year-round, so I enjoy the novelty. Also, winter provides an opportunity to photograph things you probably won't see any other time of year.

Many migrant birds can only be seen in Missouri during the winter months. Other wildlife behaves differently in the winter and can be easier to find and photograph. Mostly, though, I love the effect that the interplay of snow, ice and light can have on a landscape.

A bison, any time of year, is an impressive animal. A bison covered in frost is larger than life. The already striking colors of a songbird



become more vivid against a backdrop of white. Familiar landscapes appear otherworldly when blanketed with snow and ice. And, in a paradox of ice and fire, sunlight can make ice-bound foliage appear ablaze.

Some people use winter as an excuse to retreat inside, only venturing out when necessary. They dash between locations that, preferably, have centralized heat, and choose to experience the

season vicariously through images like these.

While I'm happy to provide this experience, nothing can replace discovering the beauty of Missouri's winter in person.

So let these pictures inspire you to pull on those long johns, zip up those parkas, and get out for a little while. Perhaps, like me, you will fall in love with what you see.

—Noppadol Paothong



▲ BLUEBIRD FEEDING

I found this Eastern bluebird one year when I was searching for songbirds' feeding places after a big snowstorm. I expected that the cold and snow would force them to concentrate in small areas and compete for food. I found a berry tree and spent days photographing the bluebird feeding on the berries that fell on the snow.

📷 600mm telephoto lens • f/5.7

◀ SHAWNEE TRAIL ICE STORM

After hearing the news about an ice storm approaching southwest Missouri, I decided to visit Shawnee Trail Prairie. When I arrived, the field was completely covered by ice. I took this image as the bitterly cold wind blew clouds off from the horizon.

📷 17-40mm wide-angle lens • f/4.0 • polarizer filter

SNOW ON BERRIES ►

A good opportunity to photograph wildlife is when snow is on the ground. I've always kept my eyes open for a good close-up detail of snow. I found these red berries that had good contrast with snow on the branch.

📷 70-200mm lens • f/3.5



▲ OPOSSUM

Snow is the best time to look for wildlife. Animals are more active searching for food, and they stand out easier in the white snow. As soon as I found this opossum walking along the snow bank, I grabbed my camera gear and started to photograph. I only had a few seconds before it disappeared into the forest.

📷 500mm telephoto lens • f/5.7



▼ BISON

When I heard about a heavy ice storm coming in January 2007, I packed my gear and headed down to Prairie State Park near Lamar, where I could photograph a herd of wild bison. When I arrived, the park was covered with ice, and there was a minus 10-degree wind chill. After a few hours outside, my clothes were totally covered with sheets of ice. On the fourth day of photographing, snow started to fall again, and I found this group of bison huddled together to stay warm. I spent the next few hours walking ahead of them, trying not to make them mad and charge me. This image is my favorite because it shows the harsh weather bison have to endure.

📷 500 mm telephoto lens • f/4.0



PAYING it **FORWARD** >>

DAVID STONNER

HOW THE **FARM BILL** HELPS BUILD OUR CONSERVATION LEGACY

by BILL WHITE



Bill White and his son, Tony, hunt quail.
The Farm Bill creates an abundance
of wildlife, benefiting generations of
hunters to come.

The federal Farm Bill has brought more than \$1.5 billion in conservation funds to Missouri landowners since 1985, when the first of the modern conservation programs, the Conservation Reserve Program, began.

The conservation provisions of the Farm Bill have the potential to leave a legacy to benefit future generations of Missourians. That legacy will likely include cleaner water for drinking and recreation, sustainably managed forests, soils that are more productive and more abundant wildlife. These programs are already providing direct benefits for my children and my grandson as they enjoy the adventures of hunting, fishing and even a glass of water from the tap. Your family is benefiting, too.

CLEANER WATER >>

While much of the state and national press focuses on the commodity price support and nutrition portions of the Farm Bill, little is said about the conservation programs and the direct impact they have on most Missourians. For instance, when we drink a glass of water, these federal programs have made it a better glass of water for us to drink, whether it comes from an underground aquifer, a river or lake. In fact, several programs are aimed specifically at watersheds above the drinking water intakes of rivers and lakes throughout Missouri. The Conservation Reserve Enhancement Program is the most recent program focused on those watersheds and has enrolled 40,000 acres



NOPPADOL PAOTHONG

At a water supply plant, a worker tests drinking water. Clean water is important in the farm bill, because it is a vital resource for all citizens.

of cropland into buffers and wildlife practices in order to protect drinking water quality. The Department of Conservation and the Department of Natural Resources have provided additional funding for this program.

The Farm Bill helps Missouri agricultural producers to properly manage pesticides and nutrients to keep those pollutants from entering streams and underground aquifers. Through the Environmental Quality Incentives Program of the 2002 Farm Bill, more than 400,000 acres of cropland in Missouri have had nutrient and pest management practices applied to ensure that runoff into lakes and streams contains only minimal amounts of nutrients and pesticides. In 2008 alone, nutrient and pest management practices were applied to more than 220,000 acres in Missouri through all programs of the Farm Bill.

The Farm Bill also provides funding for the management of livestock waste from small confinement operations on family-owned farms. Livestock waste runoff into streams has been eliminated for an estimated 20,000 head of cattle, 200,000 head of swine and 500,000 poultry.

If you use Missouri's streams and lakes for fishing, canoeing or other recreation, these programs are helping keep that water cleaner, too. When my grandson, Kalon, caught his very first fish last summer, it was in a small river made cleaner by these and other efforts through the Farm Bill. In fact, we walked through a CRP buffer along the river to get to that fishing hole.

REDUCED SOIL EROSION >>

The programs of the Farm Bill have had a significant impact on soil erosion since the Conservation Reserve Program was first implemented in 1985. Missouri's erosion rate has dropped more than any other state's since 1982, when its 10.9 tons-per-acre rate was the second highest in the nation. In 2003, an average of 5.3 tons of soil eroded from each acre of Missouri's cultivated cropland. This is the fifth highest rate in the country.

Another large credit for this hefty drop in soil erosion comes from an aggressive soil and water cost-share program operated by the Missouri Department of Natural Resources and county soil and water conservation districts across the state. It is funded by a 1/10 of 1 percent sales tax dedicated toward soils and state parks.

FORESTS FOR THE FUTURE >>

No other program funds sustainable management for so many acres of our private forests. Farm Bill funding for forestry practices in Missouri is approaching \$1 million per year. The promise of the Farm Bill for our forests can best be summed up by the American Forest Foundation:

"The Farm Bill will increase opportunities for America's



An MDC employee speaks with a landowner about how to best manage CRP for wildlife. Programs of the Farm Bill have had significant positive impact on soil erosion since the CRP was first implemented.



The Farm Bill program funds sustainable management for many acres of private forests. Funding for forestry practices in Missouri is approaching \$1 million per year.

private forest landowners to provide economic and environmental benefits to the larger society. These provisions represent great advances on behalf of private forest landowners. Working forests are vital to our rural economies. It is in our collective interest to help ensure that family forest landowners can afford to keep their land in forest management where they choose to do so, and that millions of acres of forested land remain forested and managed to provide jobs and timber, clean water, opportunities for fishing, hunting and enjoyment of the outdoors, habitat for fish and wildlife and defense against changing and more unpredictable climate.”

My son Andrew’s first turkey was harvested in timber sustainably managed through a Farm Bill program. It was the same stand he harvested cedar logs from to build seating for the front porch. Turkeys are attracted to this forest for nighttime roosting, because the open understory allows the birds to easily fly up into the roost trees at dark.

IMPROVING WILDLIFE HABITAT >>

A prime example of a Farm Bill conservation legacy is the restoration of bobwhite quail to portions of Missouri. Just a few years ago, most Missourians thought that restoration of declining bobwhite quail populations was a lost cause. Instead, Missouri landowners today are seeing the fruits of quail habitat installed through Farm Bill programs. Reports from across the state indicate quail are responding to these habitat efforts, especially where conservation is applied over the landscape on contiguous farms.

Quail employ several techniques to foil predators and

one that works particularly well—especially on me—is the flush of the covey. If you have never witnessed a covey flush, it is a sudden burst of confusion, sound and little blurs moving away from you at 55 mph in all directions! Even if you are prepared for the flush, it will startle you. It gets me every time. And it got my son Tony, too, on his first quail hunt. “I didn’t know which one to shoot at!” he shouted when no birds fell in spite of our shooting.

Few fall outdoor activities can beat watching a pointing dog do its thing. It did not matter that we did not drop a bird. Tony got to experience a dog working a field, the lockup on point and the rush of a covey flushing, and that satisfied the both of us. One day soon, he will experience the satisfaction of the harvest. He will get that experience because the federal Farm Bill is helping restore quail habitat, even the habitat on my own farm.

When it comes to my own small farm I try to practice what I preach, and the farm is where I want to share the legacy of hunting with my children. However, I had no quail on the property when I bought it in 2004. So, to help offset some of the cost of restoring quail habitat on this farm I enrolled in the Environmental Quality Incentives Program of the Farm Bill. I received cost-share to convert fescue fields to native grasses and forbs, use timber stand improvement on the forested areas and edge feather the cedar-choked fence lines. The first year of the contract, we

Missouri Conservation Achievements of the Farm Bill: Soil, Water and Wildlife

WRP	<i>Wetland Reserve Program</i> \$176 million and 126,000 acres of wetland restored
CRP	<i>Conservation Reserve Program</i> 1.45 million acres enrolled, 27.7 million tons of soil/yr saved
GRP	<i>Grassland Reserve Program</i> 10,000 acres of native prairie preserved
CSP	<i>Conservation Stewardship Program</i> 50,000 acres of rice field re-flooding for migrating waterfowl and 15 million linear feet of wildlife field borders
EQIP	<i>Environmental Quality Incentives Program</i> 10,000 acres of timber stand improvement per year
WHIP	<i>Wildlife Habitat Incentives Program</i> More than \$2 million for restoration of degraded glades and savannas

worked to convert fescue on two small fields, edge feather and work on one of the blocks of woodland. Within a year, a covey of 10 quail responded. The next year, two coveys were found. During the third year, we completed the fescue eradication on all 11 acres of open fields and had three coveys, each having 15–20 birds.

The Farm Bill provides habitat for more than just quail. Edge feathering and downed tree structures team with cardinals and a variety of other songbirds, which rely on the same habitat as quail. Monitoring of the CRP CP33 habitat practice has shown that declining songbirds such as indigo bunting and field sparrows also benefit from these native grass buffers. Quail are a poster child for almost 140 other species of wildlife that use the same habitats. The Farm Bill also has restored hundreds of thousands of acres of wetlands, prairies, glades and savannas. In 2008 alone, it created other kinds of wildlife habitat on 83,132 acres in Missouri. Did you know that the surge



To learn more, visit NRCS at www.mo.nrcs.usda.gov/programs/ and FSA at www.fsa.usda.gov/FSA.

in most duck populations since the 1980s is in large part attributed to CRP in the northern Great Plains?

Only the Farm Bill has the funding base necessary to affect landscape-scale changes, whether it be for wildlife habitat, soil erosion, water quality or sustainably managed forests. Without much fanfare, the conservation programs of the Farm Bill are working for you today and will continue to work into the future to benefit the next generations of Missourians.

Oh, and by the way, Tony did get his first bird. “I like quail hunting better than turkey and deer hunting because you get to walk around and see stuff!” he declared. Some days you just have to walk more than others. ▲



DAVID STONNER

Restoring bobwhite quail populations is a great benefit of the Farm Bill conservation legacy.



Companions hunt waterfowl on the
Mertensmeyer wetland near Carrollton.

WETLAND PROGRAM WORKS

*Families,
ducks and
hunters
all benefit
from CP-23.*

by BONNIE CHASTEEN
photos by DAVID STONNER





Steve (left), Nellie and Tom Mertensmeyer converted part of their family farmland into wetlands, benefitting the family, hunters and wildlife for many years.

Tom Mertensmeyer loves to tell the story of how his mom and dad, Nellie and Lawrence, turned part of their 260 acres along the Missouri River bottom in Carroll County into a haven for waterfowl.

They bought the property in 1943, and over the years the hard-working couple made it both their home and business, raising seven kids there and farming the land.

Although Lawrence was a good farmer, he struggled to keep some of his most flood-prone acres in production. "Because they had a tendency to be wet," Tom said, "we often had to replant those acres and then keep our fingers crossed the rest of the year, hoping it didn't rain too much."

In the '60s, Lawrence found a better use for those wet acres. He was an avid hunter and

especially loved duck and goose hunting, so it made sense to him to turn his most flood-prone land into prime waterfowl habitat. On the 8 acres he selected for the project, he pushed up some small berms and made a duck pond.

"Dad also belonged to Ducks Unlimited," Tom said. "Every spring he would receive a few dozen mallard duck eggs from the organization, and we would hatch them in an incubator or find a chicken that was sitting on eggs and switch them."

Tom remembered the ducklings having the run of the yard. They flew away each fall, he said, but every spring, like clockwork, ducks would return to lay their eggs in the flower beds, garden, barn, or anywhere they could find a spot to build a nest and hatch a family.



Lawrence Mertensmeyer first decided to convert his flood-prone acres into waterfowl habitat and hunting areas in the 1960s.

Cancer Strikes

This charming cycle of farming, duck rearing and hunting was interrupted in 1970, when Lawrence succumbed to melanoma cancer. Lawrence's death left Nellie, at age 52, to operate the farm. Tom says she kept a positive attitude and did what was necessary to keep going.

Over the years, Nellie became more active in her community, and continued running the farm, with local family members sharing the load. Weather fluctuations, however, made her farm income unpredictable and as she grew older it became harder for her to manage the ups and downs. Tom and his brother, Steve, knew they needed to find a way to stabilize Nellie's farm income so she did not have to worry and could concentrate on her volunteer work.

Finding Solutions

Tom is a retirement planner by profession and said he's seen the good, the bad and the ugly of retirement scenarios in the past 19 years. "My recommendation is to start retirement planning sooner rather than later," he said.

Tom and Steve, a Kansas City businessman, researched standard arrangements between landlords and tenants in Missouri. They discovered that the cash rent model was best for their farm. Unlike sharecropping, cash rent does not

About CP-23

CP-23 is a "continuous" Conservation Reserve Program practice. This means it targets land that will most benefit water quality and wildlife. All continuous CRP practices offer financial incentives, including an annual, per-acre soil rental payment and restoration cost-share (50 percent plus an additional 25 percent—or a total of 75 percent).

To qualify, your land must have soils that are at least 51 percent hydric (wetland soils), meet cropping criteria as determined by the Farm Service Agency and be located within the 100-year floodplain of a permanent river or stream. The contract length can be either 10 or 15 years.

Ducks Unlimited, The Missouri Conservation Department and the USDA offer a special CP-23 Enhancement program in two Missouri focus areas: the Middle Missouri Focus Area and the Confluence Focus Area. This program allows landowners to "enhance" their CP-23 contracts by seasonally flooding cropland adjacent to the CP-23 treatment. In this situation, DU and MDC will pay 100 percent of the enhancement costs, not to exceed \$10,000.

For more information on USDA programs, contact your local service center or visit the Natural Resources Conservation Service at www.nrcs.usda.gov/programs or the Farm Service Agency at www.fsa.usda.gov.

— Mike McClure



The Mertensmeyer's 65 acres of wetlands provide waterfowl with habitat and hunters with a prime spot for the season.

require the landlord to pay for any of the production costs.

“Nellie gets a check twice a year,” Tom said, “regardless of the price of commodities or how good or bad the crop year—plus she doesn’t have to share expenses.”

A great egret looks for food at the Mertensmeyer wetland.

Once they settled on this approach, Tom and Steve invited several trusted local farmers to offer bids on just the best crop acres on the farm. After considering cash rent bids, as well as management approaches, they accepted the offer that made Nellie feel most comfortable.



With the cash rent arrangement in place, Tom went on to review available farm conservation programs for the flood-prone acres.

“We already had part of the farm in the Conservation Reserve Program and a small 5-acre CP-9 wetland,” he said, “but when we heard about the CP-23 wetlands, that was the *Aha!* moment—especially in view of our father’s legacy. We thought it was a perfect fit for our family farm, especially for those floodable acres.”

Honoring Dad’s Conservation Ethic

The Conservation Practice-23 program allowed the Mertensmeyers to take the 65 acres of cropland that were most vulnerable to flooding out of production and receive a dependable fixed payment per acre. The net result was a risk-free, guaranteed fixed income for Nellie, year after year.

“Mike McClure, a wetlands biologist with the Department of Conservation, made it easy for us,” Tom said. “He designed the project. We hired a dirt work contractor who was familiar with building CP-23s, and the project was done.”

That fall, the place was covered with ducks. Tom said the whole family, including Nellie, felt like they had done something really good for the environment and for wildlife. “If my father was alive today,” he added, “he would love it.”


Hunt Clubs Help

The CP-23 program led directly to another income source for Nellie when Tom and Steve realized they could offer the wetlands they’d developed to trusted hunt clubs.

Two Missouri hunt clubs pay a set annual fee to hunt two separate wetland parcels on the property. Splitting the property ensures that the clubs will not have to compete with each other or with other hunters for birds during the hunting seasons.

Thanks in large part to Tom’s and Steve’s efforts to secure their mother’s retirement, Nellie now is able to count on a steady annual income on each acre. The payments come in at the same times each year, and there is very little accounting to do and few input costs.

“And, she doesn’t have to worry about the weather,” Tom added. “This is a great way for a retired farmer to operate.” ▲

A full-page photograph showing two hunters in silhouette against a bright, low sun. The hunters are standing in a field, one holding a rifle. The sun is a large, bright circle in the upper center, casting a warm orange glow across the sky and reflecting on a body of water in the foreground. The hunters are positioned in the middle ground, facing each other.

Two Missouri
hunt clubs use
the property for
a set annual fee.

Hunting and Fishing Calendar

FISHING

	OPEN	CLOSE
Black Bass (certain Ozark streams, see the <i>Wildlife Code</i>)	5/24/08	2/28/09
impoundments and other streams year-round		
Bullfrogs and Green Frogs	Sunset	Midnight
	6/30/09	10/31/09
Gigging Nongame Fish	9/15/08	1/31/09
Nongame Fish Snagging	3/15/09	5/15/09
Paddlefish	3/15/09	4/30/09
Paddlefish on the Mississippi River	3/15/09	5/15/09
Trout Parks Catch and Release	11/14/08	2/9/09
Friday–Monday at Bennett Spring, Montauk and Roaring River and daily at Maramec Springs		
Trout Parks	3/1/09	10/31/09

HUNTING

	OPEN	CLOSE
Coyotes	5/12/08	3/31/09
Crow	11/1/08	3/3/09
Deer		
Firearms		
Urban	10/9/09	10/12/09
Youth	10/31/09	11/1/09
	1/2/10	1/3/10
November	11/14/09	11/24/09
Antlerless	11/25/09	12/6/09
Muzzleloader	12/19/09	12/29/09
Furbearers	11/15/08	1/31/09
Groundhog	5/11/09	12/15/09
Light Goose Conservation Order	1/31/09	4/30/09
please see the backcover of the <i>Waterfowl Hunting Digest</i> or download the PDF at www.MissouriConservation.org/777		
Rabbits	10/1/08	2/15/09
Squirrels	5/24/08	2/15/09
Turkey		
Youth (resident only)	4/4/09	4/5/09
Spring	4/20/09	5/10/09
Fall	10/1/09	10/31/09
Waterfowl	please see the <i>Waterfowl Hunting Digest</i> or see www.missouriconservation.org/7573	

TRAPPING

	OPEN	CLOSE
Beaver and Nutria	11/15/08	3/31/09
Otters and Muskrats	11/15/08	see <i>Wildlife Code</i>

For complete information about seasons, limits, methods and restrictions, consult the *Wildlife Code* and the current summaries of *Missouri Hunting and Trapping Regulations* and *Missouri Fishing Regulations*, the *Fall Deer and Turkey Hunting Regulations and Information*, the *Waterfowl Hunting Digest* and the *Migratory Bird Hunting Digest*. For more information visit www.MissouriConservation.org/8707 or permit vendors.

The Department of Conservation's computerized point-of-sale system allows you to purchase or replace your permits through local vendors or by phone. The toll-free number is 800-392-4115. Allow 10 days for delivery of telephone purchases. To purchase permits online go to www.wildlifelicense.com/mo/.



A bored game board game

Contributors



BONNIE CHASTEEN wears many hats in the Department's Outreach and Education Division. She coordinates communications for the Web site and writes for the *Conservationist*. When she's not writing about conservation, she's cooking, painting or traveling to visit family and friends.

NOPPADOL PAOTHONG discovered his passion for wildlife photography in college in 1995. Born in Thailand, he came to the U.S. in 1993 to study graphic arts before switching to journalism. When not traveling and photographing, he enjoys time at home cooking. He, his wife, and their two golden retrievers live in Columbia.

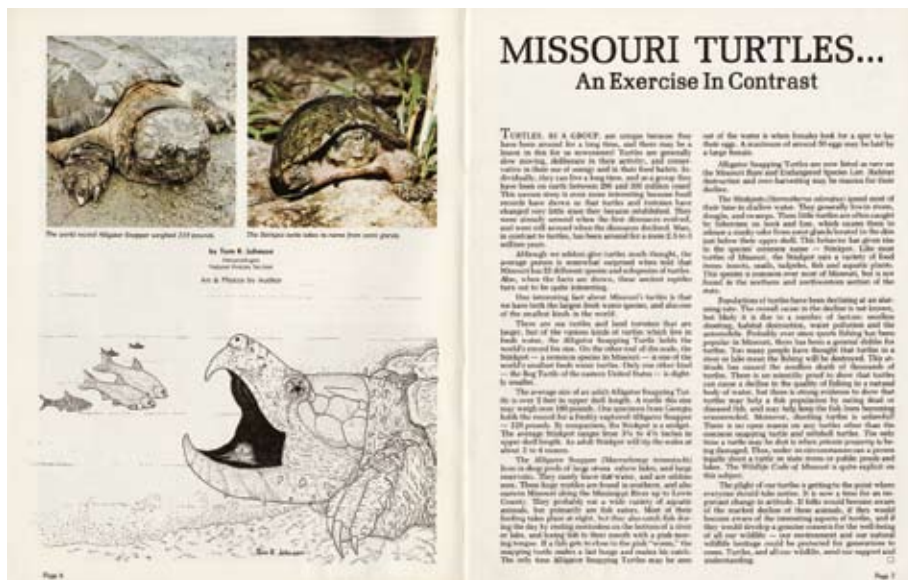


BILL WHITE is a private land programs supervisor for the Department of Conservation in Jefferson City. He coordinates Department efforts to implement fish, forest and wildlife aspects of USDA Farm Bill Programs. His interests include quail hunting, camping and keeping up with four sons and a grandson.

TIME CAPSULE

February 1979

Missouri Turtles . . . An Exercise In Contrast was written by Tom R. Johnson about 22 different species of Missouri turtles. Missouri has the smallest and the largest fresh water turtles in the world. The alligator snapping turtle holds the world record for largest, weighing 219 pounds, and the stinkpot is the smallest species, weighing 3 to 4 ounces. Alligator snappers are found in eastern and southern Missouri along the Mississippi River. They are listed on the Missouri Rare and Endangered Species list. The stinkpot can be found in shallow water in rivers, swamps and sloughs. They are common in Missouri, except in northwestern and northern sections of the state.—Contributed by the Circulation staff



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Shawn Cunningham

“I AM CONSERVATION”

Samantha Farthing, of Cole County, has only been tying flies for about a year, and only fly-fishing a little longer than that. “I grew up around fly-fishing and tying,” said Farthing, “but was never really interested in it until I moved back to Missouri about a year and a half ago.” Now Farthing goes fishing as much as possible. “Fly-fishing, to me, is one of the best ways to really be attuned to nature. When you are standing in the middle of the river, trying to make the fly you tied act like a real insect or animal, it’s hard not to feel a part of your surroundings. It’s the best stress relief there is. It also is so satisfying to catch a fish on a fly that you tied yourself!” To learn more about conservation activities, visit www.MissouriConservation.org. —PHOTO BY DAVID STONNER



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